

A LISTING OF THE CLAIMS

Claim 1 (Currently amended): A method for developing a test program in general purpose C/C++ constructs, the test program for testing a semiconductor integrated circuit (IC) in a semiconductor test system, the method comprising:

describing test system resources, test system configuration, and module configuration in general-purpose C/C++ constructs for the development of a test program to test the IC on the semiconductor test system, wherein describing test system configuration comprises specifying a site controller for controlling at least one test module, and wherein each test module includes ~~vendor-supplied~~ hardware and software components supplied by a vendor of the test module for applying a test to the IC, wherein ~~each vendor-specific~~ the software module component of each test module comprises a ~~module-specific~~ compiler specific to the test module for generating test pattern objects ~~by compiling a source file into a module-specific format~~ data specific to the test module to be loaded that loads on the vendor-supplied corresponding hardware component of the test module;

describing a test sequence in general-purpose C/C++ constructs for the development of the test program to test the IC on the semiconductor test system;

describing a test plan in general-purpose C/C++ constructs for the development of the test program to test the IC on the semiconductor test system;

describing test conditions in general-purpose C/C++ constructs for the development of the test program to test the IC on the semiconductor test system;

describing test patterns in general-purpose C/C++ constructs for the development of the test program to test the IC on the semiconductor test system;

describing timing of the test patterns in general-purpose C/C++ constructs for the development of the test program to test the IC on the semiconductor test system; and

storing the test program in memory of the semiconductor test system.

Claim 2 (Original): The method of claim 1, wherein describing test system resources comprises:

- specifying a resource type, wherein the resource type is associated with at least one test module for applying a test to the IC;
- specifying a parameter type associated with the resource type, and
- specifying a parameter of the parameter type.

Claim 3 (Previously presented): The method of claim 1, wherein describing test system configuration comprises:

- specifying an input port of a module connection enabler,
- wherein the test system couples the site controller to the module connection enabler at the input port, and the module connection enabler couples the site controller to the at least one test module.

Claim 4 (Original): The method of claim 3, wherein the module connection enabler is a switch matrix.

Claim 5 (Previously presented): The method of claim 1, wherein describing module configuration comprises:

- specifying a module identifier for specifying a module type;
- specifying executable code for controlling the test module of the module type specified by the module identifier; and
- specifying a resource type and resource units associated with the test module.

Claim 6 (Original): The method of claim 5, the method further comprising specifying a slot identifier for specifying an output port of a module connection enabler, wherein the test system couples the test module to the module connection enabler at the output port, and the module connection enabler couples the test module to a corresponding site controller.

Claim 7 (Original): The method of claim 6, wherein the module connection enabler is a switch matrix.

Claim 8 (Original): The method of claim 5, wherein the executable code is a dynamic link library.

Claim 9 (Original): The method of claim 5, further comprising specifying a vendor identifier for identifying the provider of the test module.

Claim 10 (Original): The method of claim 5, further comprising specifying an identifier of the maximum number of resource units available in connection with the resource type.

Claim 11 (Original): The method of claim 5, wherein the resource type is digital tester pins and the resource units are tester channels.

Claim 12 (Original): The method of claim 5, wherein the resource type is analog tester pins and the resource units are tester channels.

Claim 13 (Original): The method of claim 5, wherein the resource type is RF tester pins and the resource units are tester channels.

Claim 14 (Original): The method of claim 5, wherein the resource type is power supply pins and the resource units are tester channels.

Claim 15 (Original): The method of claim 5, wherein the resource type is digitizer pins and the resource units are tester channels.

Claim 16 (Original): The method of claim 5, wherein the resource type is arbitrary waveform generation pins and the resource units are tester channels.

Claim 17 (Original): The method of claim 5, wherein the resource type is associated with resource units, the method further comprising specifying an indicator relating to which resource units are disabled.

Claim 18 (Previously presented): The method of claim 17, wherein resource units indicated as disabled represent defective resource units of the test module.

Claim 19 (Original): The method of claim 1, wherein describing test conditions comprises:

specifying at least one test condition group.

Claim 20 (Original): The method of claim 19, wherein describing test conditions further comprises:

specifying at least one specification set including at least one variable; and
specifying a selector for selecting an expression to be bound to a variable.

Claim 21 (Original): The method of claim 20, wherein association of the test condition group with a selector for the at least one specification set defines a test condition.

Claim 22 (Original): The method of claim 21, wherein the test condition is an object.

Claim 23 (Original): The method of claim 1, wherein describing a test sequence comprises specifying:

a result of executing a flow or test;
an action based upon the result; and
a transition to another flow or test based upon the result.